



TR

From:

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Re: Detailed Action
Application/Control Number 10/828,805
Art Unit 2875

Considering Claim Rejection #2

It is not apparent that it would be obvious to prior claimants that an optical tube of constant cross section structurally bent into a curvature of sufficiently small radius would provide a means to disperse sufficient light through a sufficient number of bends or sufficient number of radians of a bend, to provide general illumination of the interior space of a building. All prior claimants utilize the optical tube, in its smooth surface, constant cross-section form, only for the purpose of carrying the light to the area where light is intended to be dispersed, at which point the surface characteristics of the tube are altered by either mechanical or chemical means to facilitate the light dispersal. The typical function of an optical tube is to carry light along the length of the tube without having light leave through the unaltered surface or cross-section of the tube and all prior applicants have utilized the tube in this manner. With all the various methods claimants have devised to disperse the light from within the tube it has not occurred to any of them to do so in a manner as described by my invention or one of the prior claimants would have done so.

Considering Claim Rejection #3

As mentioned above all prior claimants have utilized the optical tube in its constant cross-section, unaltered surface form strictly for the purpose of conveying light to the area where it is desired to disperse the light. Mezei et al completely modify the surface of the tube at this point in order to facilitate the dispersal of the light to the outside of the tube, modifications being mechanically imparted to the surface and thereby changing the cross-sectional area and the surface characteristics of the tube.

Optical fibers (tubes) have been invented and utilized for the purpose of conveying light from one end of the fiber to the other, the intention being to keep all practicable light inside while the light transits the length of the tube. If it is obvious that my method of releasing light along the tube was obvious to prior claimants then all methods of releasing

light along the length of an optical tube would have been obvious to anyone skilled in the art of optical fiber and no claims should be patentable.



LIGHT DISPERSING DEVICE
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Segment of optical tube

2. Radius of curvature of centerline axis
3. Path of photon remaining inside optical tube after passing bend in tube
4. Path of photon leaving optical tube after encountering tube surface at necessary angle of incidence

